

Wheat Entomology Newsletter June 26, 2023

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AGRICULTURAL BIOLOGY
COLORADO STATE UNIVERSITY



Colorado Wheat
Administrative Committee

Grass sawfly

We have not observed any grass sawfly larvae in our field surveys. This suggests that the larvae have matured and have dropped to the soil. They will form pupae in the soil in which they will remain until the following spring. We will monitor these areas for adult emergence next spring.

Wheat Stem Sawfly State-Wide Survey

Now that the adult sawflies have finished their emergence cycle, we will soon start our state-wide sawfly infestation survey. This is a large project that we strive to make as comprehensive as possible. Every year, we survey over 100 sites and dissect 100 stems per site in 15 wheat-producing counties in Eastern Colorado. We will also collect from several locations in Western Kansas, to try to detect sawfly movement across the state line. See Figure 1 for our most recent map.

This year, we are adding a crop rotation component to our survey as well. We will visit several locations where we have access to information about previous crop rotations. We will determine the infestation for these sites and try to establish a relationship between different crop rotations and sawfly damage. To view all of our maps from 2013-2022, visit [Research \(csuwheatentomology.com\)](http://Research.csuwheatentomology.com)

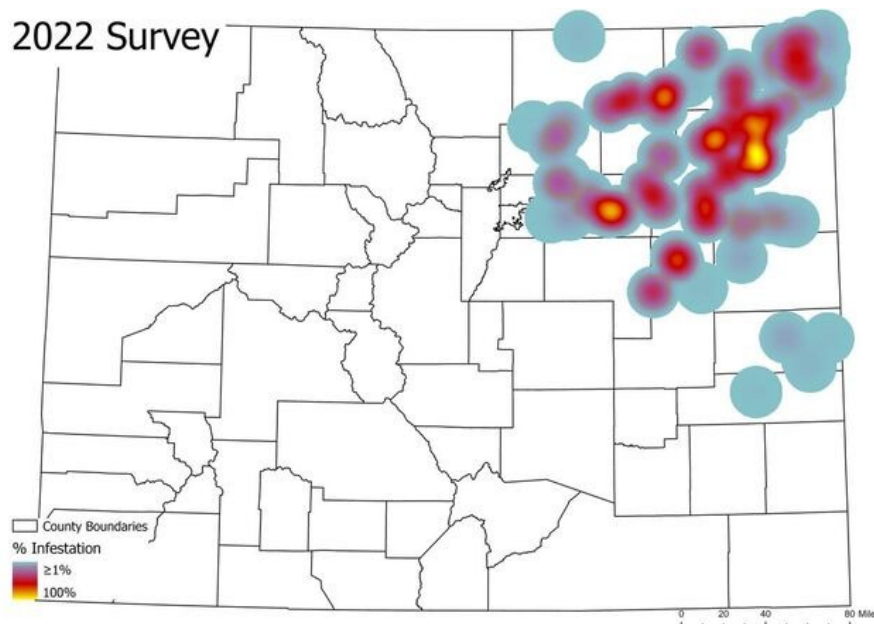


Figure 1: Map depicting 2022 wheat stem sawfly infestation in CO.

Wheat Stem Sawfly Updates from CSU Extension

While we won't know the full extent of the sawfly range across the state until we complete our survey in mid-August, here are updates we've received so far from our extension network:

- Ron Meyer (CSU extension) has reported sawfly damage occurring North of I-70, near the towns of Arriba, Flagler, and Siebert.
- Sally Jones-Diamond (CSU Crops Testing) previously reported that sawflies were confirmed at Akron and Yuma.
- Sawflies were observed by our team at the variety trials in Burlington.
- These reports match what we've observed in many previous years, with sawfly infestation being most prevalent North of the I-70 corridor.

Solid Stem Screening

Our team is currently collaborating with Dr. Esten Mason (CSU Wheat Breeding and Genetics Program) to assess solid stem rating of the CSU breeding lines at Orchard and the ARDEC research station at Fort Collins. We rate all stems on a 5-25 scale, with a 5 indicating a completely hollow stem, and a 25 equaling a completely solid stem. This year we are inspecting over 6000 stems to help ensure grower confidence in the traits of the wheat they purchase.



Figure 2: Photo of Anne Sellman (student researcher) scoring stem solidity.

Wheat Diseases

For wheat disease updates by Dr. Robyn Roberts, please see:

<https://coloradowheat.org/category/news-events/wheat-pest-and-disease-update/>

Acknowledgments

We would like to acknowledge the tireless work of CSU researchers and extension agents for reporting pest problems throughout the state. Special thanks to Kevin Larson, Brett Pettinger, Ron Meyer, Todd Ballard, Sally Jones-Diamond, Dennis Kaan, Kat Caswell, and Michaela Mattes.